

our native plants. The Essex Committee is simply organizing a raid upon plants which are already near to extinction. I hope that they will fail to discover the rarities which they selfishly covet; their enterprise is, I venture to say, an injury to natural history and to education alike. It may not be too late to get this programme cancelled, and I would beg those who care for live natural history to use their influence in diverting the attention of the Essex collectors to some other pursuit where they will do less harm."

ON SCIRPUS ROBUSTUS PURSH AND CERTAIN OF ITS NEAR ALLIES

BY EUGENE P. BICKNELL

A recent article by Mr. M. L. Fernald in *Rhodora*, 2: 239 ("Representatives of *Scirpus maritimus* in America") brings to notice a common eastern bulrush hitherto concealed under the species *Scirpus robustus* Pursh.

Mr. Fernald's paper, of much interest in itself, was of particular interest to me for the reason that this same bulrush clearly announced itself to me in the field several years ago, when I was led over the same technical ground traversed by Mr. Fernald's more recent study, and to conclusions similar to but not identical with those there expressed.

Mr. Fernald's conclusion is that the new plant is related to *Scirpus robustus* as a variety, by which term I understand a state or condition of that species or a tendency of the plant, from whatever cause, to express itself in a particular form more or less divergent from the recognized type.

My own conclusions were that the plant was probably not a very remote derivative, or ancestor, of *Scirpus robustus*, but that the two plants had, nevertheless, reached a condition of organic separateness—of individualization—which could be rightly expressed only in terms of absolute distinctness at species. Here was a case, it seemed to me, one of many, indeed, where extremely close relationship would probably refuse to be transformed under any conditions of environment into actual organic identity.

Mr. Fernald finds this new eastern plant to be identical with the *Scirpus paludosus* A. Nelson from Wyoming. This being true I cannot doubt that the plant should continue to be known

by the specific name conferred by Mr. Nelson rather than by the varietal form proposed by Mr. Fernald.

My own observations on the two plants were made near Van Cortlandt, New York City, where both occurred near together in the same marshes, *S. robustus* mostly along muddy ditches, *S. paludosus* on the open salt meadows or along their borders. I have since found *S. paludosus* abundant on muddy or sandy flats along the coast as far east as Mt. Desert.

Not the least noteworthy distinction between the two plants where they occur together is in their time of flowering, *S. paludosus* coming into bloom three or four weeks before its near relative, sometimes being in full bloom while yet its companion species shows not the first signs of developing spikes. I have found it blooming as early as the third week in May, while the spikes of *S. robustus* do not usually appear until towards the middle of June. Furthermore *S. paludosus* often or usually grows in close colonies, *S. robustus* in scattered groups. My field notes record the following comparative differences between the two as they occur at New York: *S. robustus* is habitually much taller and more leafy, mostly with longer and broader leaves and stouter culms; *S. paludosus* is lower and stiffer, with much shorter and narrower leaves. It is in fact often extremely slender throughout, and though becoming 6 dm. or more tall often bears dense clusters of fruiting spikes when only a few inches high. *S. robustus* becomes 1.5 meters tall, and small examples are usually sterile or only imperfectly floriferous. The dense clusters of mostly ovate, sessile spikes have already been described by Mr. Fernald. In addition I find the scales to be usually darker and relatively shorter, finally becoming more lacerate and the achenes often also darker, thicker and more broadly obovate or sub-orbicular, and the styles shorter. The underground tuber-bearing stems also appear to be quite constantly shorter than those of *S. robustus*.

S. paludosus has undoubtedly much the habit of *S. campestris* Britton, of the prairie region, which is also rated by Mr. Fernald only a variety of *S. robustus*. Of the perfect distinctness of *S. campestris*, however, I can feel no doubt after the examination of fully matured examples showing a form of achene which in

greater narrowness and more pointed apex, besides duller color, was unmistakably different from that of *S. robustus*.

The purpose of this paper, however, is not to announce a mere want of exact accord in the results of two independent studies of the plants in question but rather to bring out the existence of still another New England bulrush of the *S. robustus* group certainly very distinct from any other at present recognized. This plant was collected by me in mature fruit August 20, 1898, on the shore of Somes Sound, Mt. Desert, Maine, growing in company with *S. paludosus*. This plant may appropriately bear the name of Mr. Fernald, through whose critical industry the old genus *Scirpus* in New England has become scarcely recognizable in its lineaments of to-day.

Scirpus Fernaldi sp. nov. Rather pale green, from 4-8 dm. high, the slender culms sharply three-angled and striate: stem-leaves long and narrow, the longer ones equalling or surpassing the inflorescence, 2-6 mm. wide, slenderly attenuate: primary involucrel leaf erect, mostly 15-20 cm. long: spikes rather pale, short-ovate or finally broadly ovate, mostly 10-15 mm. long, 1-3 in a sessile or stipitate cluster and 1-5 solitary, on slender stiffly flexuous or crinkled, wiry, diverging peduncles 2-7 cm. long: scales finely close-puberulent, the lower ones often rather widely ascending, membranous, acuminate, entire or bifid or becoming lacerate, the midvein excurrent in a slender flexuous or recurved awn 3-12 mm. long: achene rather yellowish-brown and shining, broadly truncated, obovoid-cuneate, 2.5-3 mm. long, and broad, usually slightly longer than broad, almost equally trigonous or slightly depressed trigonous, the angles rounded or the dorsal swelling more or less umbonate, short-mucronulate and sometimes slightly retuse, the slender style several times the length of the achene, bearing three slender stigmas; bristles shorter than or subequal with the achene.

Type in herbarium of the New York Botanical Garden.

The pale, short-ovoid spikes, some of them on slender, elongated peduncles, and bluntly trigonous achenes, mark this plant off distinctly from all of its near allies.

A WEEPING CRATAEGUS

BY JOHN K. SMALL

Several years ago Mr. A. H. Curtiss sent me specimens of a very slender *Crataegus* which he had collected near Crestview in